

# SWAP NEWS

## Montana Source Water Assessment Program Update

### SUSCEPTIBILITY ASSESSMENT

*Prioritization of Source Water  
Management Needs*



**New Staff:** DEQ would like to welcome James Swierc (pronounced "swertz") to his new position as a



water quality specialist in the Source Water Protection section. James will be putting his education and experience as a Hydrogeologist to work for DEQ working with Montana's four local water quality districts. He also will help with delineation and assessments at public water systems, encourage and support communities in developing source water protection plans, and participate in other ground water related planning. James comes to us from Fort Belknap College where he had responsibilities ranging from setting

up a water quality lab to teaching water-related courses.

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The 1996 amendments to the Safe Drinking Water Act include requirements for states to conduct susceptibility assessments as part of their source water assessment programs. Susceptibility assessment is a process of prioritizing prospective actions communities can take to protect their source waters. Susceptibility is defined by the proximity of a specific potentially polluting activity to a water source, the quantity and toxicity of the contaminant of concern, and the existing level of protection from contamination.

Under Montana's proposed Source Water Protection Program, susceptibility is ranked by hazard rating and the presence of barriers. Hazard ratings are determined by the proximity of a potential contaminant source to a well and the quantity and toxicity of the potential contaminant. Barriers can be afforded through engineered structures, management actions, treatment processes, and/or natural conditions. Bentonite liners in waste treatment lagoons and secondary containment in chemical storage areas are examples of

engineered barriers. Limiting or prohibiting potentially polluting activities in a source water protection area and emergency planning are considered management barriers. Treatment barriers include disinfection, filtration, and blending. Finally, thick clayey soils, a thick unsaturated zone above the water table, and contaminant attenuation can be natural barriers. Dilution through mixing also may be a natural barrier.

All public water systems will receive a susceptibility assessment as part of the source water assessment report for their system. Susceptibility will be ranked from very high to low for each facility or land use that is determined to be a significant potential source of contamination. Public water systems can use this information to focus their efforts on the greatest threats to their source waters. This information also can be used to identify management barriers that should reduce susceptibility in the most efficient manner.

Montana DEQ is developing guidance on susceptibility assessment for those interested in conducting source water assessments. Systematic procedures and worksheets will be provided to assist in the process of rating hazards and evaluating barriers.

The purpose of this guidance is to assure consistency is maintained among assessments for water systems across the state.

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Source water assessment reports are being prepared by DEQ for McHugh's Mobile Home Park in Helena, the City of Manhattan, and Sage Creek Hutterite Colony.



Source water protection plans have been certified for Gore Hill County Water District and Sage Creek County Water District.

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### UPDATE ON EPA REVIEW OF MONTANA SWAP

Formal comments are expected from EPA regarding the Source Water Assessment Program by late July. DEQ personnel will address EPA's comments and expect EPA to approve the program prior to the November deadline. Once the program has been approved, DEQ will release guidance on pass-through grant opportunities and procedures for preparing source water assessment reports.

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### STATUS OF DELINEATION AND ASSESSMENT REPORTS AND SOURCE WATER PROTECTION PLANS

DEQ and the Montana Bureau of Mines and Geology began developing the "Montana Source Water Protection Technical Guidance Manual" early in 1993 shortly after the Montana Wellhead Protection Program was approved by EPA. In the original wellhead protection approach, DEQ envisioned that local communities would organize and implement wellhead protection projects. Since those early days, we've learned that organizing wellhead protection in small communities can be a very large undertaking. In addition, since the guidance manual was written, the federal Safe Drinking Water Act (SDWA) was reauthorized. The reauthorized SDWA changed the wellhead protection picture by requiring states to develop a Source Water Assessment Program to assist communities.

Both the difficulty of implementing the original approach and changes in federal requirements have made revision of the technical guidance manual necessary. The technical guidance manual remains very useful but users need to keep in mind that changes are needed. DEQ intends to update the manual following EPA approval of the Montana Source Water Protection Program. Feel free to contact the SWP Program at (406) 444-6697 with any questions about wellhead or source water protection.

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The Natural Resource Information System (NRIS) at the Montana State Library has made images of U.S. Geological Survey topographic maps available at their Internet site

(<http://nris.state.mt.us/nsdi/drg.html>).

NRIS took 1:24,000 scale scanned images of the original maps for the state and reformatted them into 60 by 30-minute sheets. Images can be viewed online or can be downloaded for use in GIS software such as ArcView. The maps make ideal base maps when combined with other GIS coverages.

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## **EPA REGION 8 / STATE NEWS**

■ A Source Water Protection Workshop for Federal land management agencies is scheduled for July 27 in Denver, Colorado. The workshop will provide federal personnel an opportunity to learn about Source Water Assessment and Protection programs and their expected impact on federal programs. Montana will not be sending a representative as this is primarily an opportunity for EPA to apprise federal agencies of future impacts of SWAP.

■ The annual Groundwater / UIC / SWAP meeting is scheduled for August 3rd through 5<sup>th</sup> in Moab, Utah. This meeting provides state and EPA Region 8 people an opportunity to discuss issues face-to-face. Joe Meek will be representing Montana.

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## DEQ CIRCULAR PWS-6 APPROVED

The Board of Environmental Review approved DEQ Circular PWS-6 at its meeting on July 2<sup>nd</sup>. This circular will require that plans submitted by a public water supply for a new water source (including subdivision wells that will serve more than 25 persons) include a completed delineation and assessment report (SWDAR). The intent of the circular is to require a thorough assessment prior to approving new wells. This is not a new requirement, just a clarification of existing rules.

DEQ's Public Water Supply program worked hard to get PWS-6 developed and approved. They plan to provide training for consultants or other interested parties during the next month or two concerning how to meet these requirements. Training will probably take place in four or five of the major cities.

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## SWAP AND TRIBAL LAND

A question keeps coming up in discussions between DEQ and EPA: Who is responsible for delineation and assessments for public water systems within reservation boundaries? EPA implements the Safe Drinking Water Act on tribal lands. The problem arises where there are non-tribally owned systems within original reservation boundaries that are regulated by the state. EPA's position is that if the system is regulated by the state, the State is responsible for conducting assessments. If EPA acts to implement source water assessments

for systems on tribal lands, the State is not responsible according to EPA. Assessments and protection are seen as optional on the part of the tribe.

Montana DEQ intends to complete delineation and assessments for all public water systems regardless of reservation boundary. DEQ will not complete delineation and assessments at any water systems not regulated under the Safe Drinking Water Act as a public water supply. Therefore, a few tribally owned/operated systems will be excluded.

The issue of jurisdiction can be a barrier to implementing management plans. Like state and international boundaries, source water protection areas don't have to cross tribal boundaries. However, incomplete assessment areas result. Therefore, effective management will require coordination with Tribes. DEQ advises any public water supply interested in implementing a management plan to use whatever federal, state, or local authority that is available.

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